

REMARKS

This Amendment is filed in response to the Final Office Action mailed February 7, 2006, and the Advisory Action mailed on April 24, 2006, and filed herewith is a Request for Continuing Examination. All rejections and objections are respectfully traversed.

Please enter and consider the Rule 116 amendment filed on April 6, 2006.

Claims 6-9, 11-17, 19-20, and 23-52 are currently pending.

Claims 51 to 52 are added to better claim the invention.

The Applicant respectfully requests a telephonic interview with the Examiner after the Examiner has had an opportunity to consider this Amendment, but before the issuance of the next Office Action. The Applicant may be reached at 617-951-3067.

At paragraphs 3-4 of the Final Office Action, claims 6-8 and 27-50 were rejected under 35 U.S.C. §102 as being anticipated by Brunelle et al., US Patent No, 6,654,902, issued on Nov. 25, 2003, hereinafter Brunelle.

At paragraphs 5-6 of the Final Office Action, claims 9-20 and 23-24 were rejected under 35 U.S.C. §103 as being unpatentable over Brunelle, in view of Carlson et al., US Patent Application Publication 2003/0093501, hereinafter Carlson.

By way of background, Brunelle discloses a way of using standard small computer system interface (SCSI) persistent reservations with I/O barriers. The American National Standards Institute (ANSI) has standardized a number of SCSI Persistent Reser-

vation commands, such as *Persistent Reserve Out*. See col. 1, lines 28-41. Brunelle describes issuing two of these commands to assign ownership to storage devices. See col. 5, lines 60-67. The first *Persistent Reserve Out* command includes a key describing a particular node owning the device. See col. 6, lines 38-48. The second *Persistent Reserve Out* command includes a parameter specifying an access type, such as “write exclusive read only.” See col. 5, lines 65-67 and col. 6, lines 48-54. Additionally, Brunelle describes writing registration information each time a node is initialized or changed.

Additionally, the Examiner states in the advisory action:

“As per claims 6 and 9, applicant argues Brunelle fails to teach “a first ownership attribute written to a predetermined area of the disk in addition to using a SCSI persistent reservation.” However the claimed language failed to teach such a limitation.”

Applicant respectfully disagrees and Applicant notes that Applicant claims using two indicia of ownership

Applicant respectfully notes that claim 6 shows writing an ownership attribute to a predetermined area of the disk and also using a SCSI persistent reservation. In particular claim 6 states *writing ownership information to a predetermined area of the disk*, which shows writing an ownership attribute (information is broader than an attribute) to a predetermined area of the disk. Additionally, claim 6 also states *setting a small computer system interface (SCSI) persistent reservation tag to a state of network device ownership*, which shows using a SCSI persistent reservation.

Furthermore, claim 9 states *a plurality of disks having a first ownership attribute written to a predetermined area of the disk and a second ownership attribute in the*

form of a small computer system interface (SCSI) persistent reservation tag, which shows both writing an ownership attribute to predetermined area of a disk, and storing a second attribute in a SCSI persistent reservation tag.

Accordingly, Applicant does claim using two indicia of ownership: a first ownership attribute (indicia) written to a predetermined area of the disk; and a second attribute (indicia) of ownership using a SCSI persistent reservation tag.

The Examiner further states in the Advisory Action:

“As per claim 6, Applicant argues that Brunelle fails to teach “writing information to a predetermined area of the disk”. However Brunelle clearly teaches wherein “the read key commands requests that the shared device manager return a list of the cluster nodes that have previously registered with storage device by returning a list of registration keys store in the – storage device (see col. 5, lines 27-37) and wherein “the persistent reserved table is stored in the storage device. The persistent reserve table includes a reservation entry for each reservation” (See col. 7, lines 8-16.”

The two sections of Brunelle cited by the Examiner state as follows:

Brunelle at col. 5, lines 27-37 states:

“The register key command registers the specified key for the cluster node 102a, 102b with the storage device 104. The reserve command requests that the access mode for the device be set to "write exclusive read only". The read keys command requests that the shared device manager 312 return a list of the cluster nodes 102a, 102b that have previously registered with the storage device 104 by returning a list of registration keys stored in the storage device 104. The preempt and abort command remaps registrations, reservations, and aborts IO commands”

Brunelle at col. 7, lines 8-16, states:

“FIG. 5 is a block diagram illustrating a Persistent Reserve table 500 stored in the storage device 104. The Persistent Reserve table 500 includes a reservation entry 502 for each reservation. The reservation entry 502 includes an initiator identifier 512 and a reservation descriptor 514. The initiator identifier 512 identifies the storage network controller 112 from which the Persistent Reserve Out command 400 was received. Each storage network controller 112 on a storage network 108 has a unique identifier.”

In reference to the statements above, Brunelle describes a storage device manager for each node. A registration key specifies the privileges of the node. This key is written to the device. Brunelle's Fig. 5 gives the format of the key written to disk. Nowhere in Brunelle is there a description or suggestion of *two part indicia of ownership* as claimed by Applicant. Applicant's invention writes ownership information in a two-part process by writing to a predetermined area of disk and also a SCSI persistent reservation tag. Brunelle does not describe using a SCSI persistent reservation tag. Brunelle only describes writing a single table of privileges to the device.

Accordingly, Brunelle does not discuss *writing ownership information to a predetermined area of the disk* and *setting a small computer system interface persistent reservation tag to a state of network device ownership to provide a two part indicia of ownership*.

The Examiner further states in the advisory action:

“As per claim 9, Brunelle clearly teaches wherein “the read key commands requests that the shared device manager return a list of the cluster nodes that have previously registered with the storage device by returning a list of registration keys stored in the –storage device” (See col. 5, lines 27-37) and wherein “the persistent reserved table is tore dint he storage device. The persistent reserve table includes a reservation entry for each reservation” (See col. 7, lines 7-16). Furthermore, Brunelle teaches a

first ownership attribute to the device to be set to “write exclusive read only” (See col. 5, lines 27-35).”

In reference to the statement above and cited passages above, Brunelle only writes a list of privileges for one or more nodes to a device. Again, nowhere does Brunelle describe writing two attributes to provide a two part indicia of ownership of the disk. Specifically, Brunelle does not describe a *first ownership attribute written to a predetermined area of the disk and a second ownership attribute in the form of a small computer system interface (SCSI) persistent reservation tag*. The persistent reservation tag in Applicant’s invention is written directly to the disk and not a table stored in another location. Additionally, the first ownership attribute which is written to the predetermined area of the disk is described in the specification at page 8, lines 2-5, which states:

“The first attribute is ownership information written to a predetermined area of each disk. This predetermined area is called sector S. This sector S can be any known and constant location on each of the disks. In one embodiment, sector S is sector zero of each of the disks.”

Accordingly, the Applicant respectfully urges that Brunelle is legally insufficient to anticipate the present claims under 35 U.S.C. §102 or 35 U.S.C. §103 because of the absence of the Applicant’s claimed novel *writing ownership information to a predetermined area of the disk and setting a small computer system interface (SCSI) persistent reservation tag to a state of network device ownership*.

Furthermore, representative claim 28 states in part:

“*comparing the SCSI level 3 persistent reservation tag to the ownership information of the same storage device and, if there is not a match,*

changing the SCSI level 3 persistent reservation tag to match the ownership information”

There is no description in Brunelle of comparing ownership information stored in a SCSI persistent reservation tag for a disk and any other ownership information written to that disk because Brunelle only describes storing ownership information in one place on the disk, in a reservation table. Brunelle keeps a privileges in software in a manager table, but this table is not written to disk. Applicant’s claimed invention compares the SCSI persistent reservation tag and the ownership information written to disk to provide a two part indicia of ownership.

Accordingly, Applicant respectfully urges that Brunelle is legally insufficient to anticipate the present claims under 35 U.S.C. §102 because of the absence of the Applicant’s claimed novel ***comparing the SCSI level 3 persistent reservation tag to the ownership information of the same storage device and, if there is not a match, changing the SCSI level 3 persistent reservation tag to match the ownership information***

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims.

The Applicant respectfully solicits favorable action

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Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Shannen C. Delaney", written over a horizontal line.

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